

Overall Program Status

This chapter will present a statistical summary of the cleanup efforts in the DON Environmental Restoration Program (Cleanup Program).

As of September 30, 2001, there were 4,676 sites in the Cleanup Program (3,656 Environmental Restoration, Navy (ER,N) funded sites and 1,020 BRAC funded sites). Over the next five years (FY02-FY06) the goal is to complete cleanup actions and have final remedy-inplace (RIP) or response action complete (RC) at 3,824 of the total number of sites. This would leave only 852 sites (819 ER,N and 33 BRAC) requiring further action. The longterm goal of the Cleanup Program is to have all sites RIP or RC by the end of FY14.

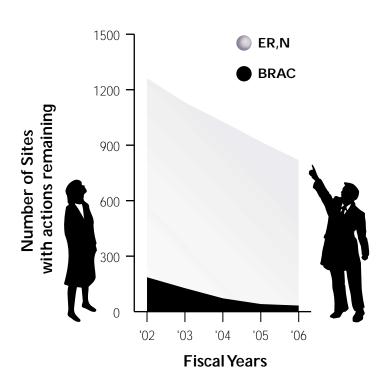


Figure 59: The Five Year Plan-sites with cleanup actions remaining

Funding History

The DON works with two funding sources; Environmental Restoration, Navy (ER,N), and BRAC funds. The ER,N account funds cleanup actions at operating (active) installations. The BRAC funds cleanup activities at bases that are slated for closure and reuse. ER,N funding for DON cleanup projects at active bases dropped from \$407 million in FY94 to a current budget of \$256 million for FY02.

Partnering with stakeholders, instituting stable funding and risk management were keys to reducing funding. Figure 60 shows the ER,N funding account through FY07.



Figure 60: ER,N Funding through FY07 in millions of dollars

4 - 2 February 2002

How ER,N Funds Were Spent

During the Program's early years, DON spent most of its cleanup budget on studies because it was necessary to locate potential sites and determine the levels of contamination. DON has developed new sampling techniques and strategies for studies that focus efforts and reduce cost. While studies continue today, DON has placed an increasing emphasis on actual cleanup to reduce the risk of exposure to hazardous constituents over the past eight years.

During FY93 only 18% of funds were devoted to cleanup, but in FY01 64% of the ER,N funding source was dedicated to cleanup. Unless unforeseen circumstances demand otherwise, the Navy plans to maintain the goal of 60% for cleanup expenditure through the remainder of the Program.

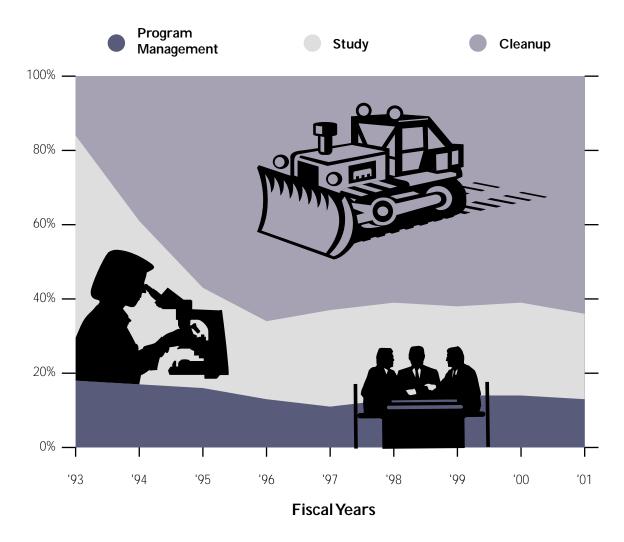
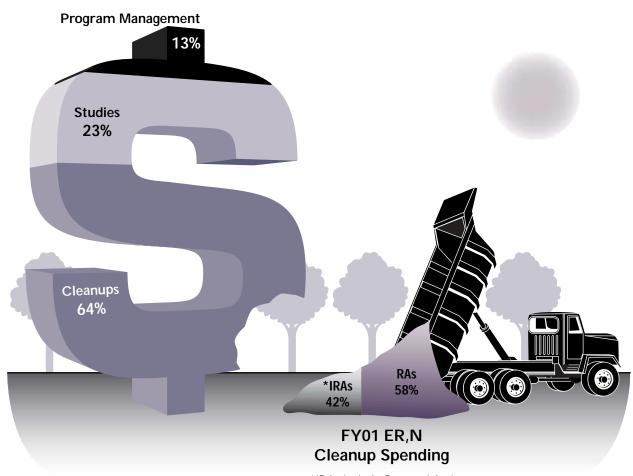


Figure 61: How ER,N Funds were spent FY93 to FY01

FY01 ER,N Spending

ER,N funding is split into three main category; studies, cleanup, and program management costs. This section will emphasize the cleanup category. Cleanup is divided into Remedial Actions (RAs) and Interim Remedial Actions (IRAs) (including removal actions). RAs are final cleanup solutions, after which no further cleanup is needed at a site. IRAs and removal actions are quick response actions to stabilize a site or remove contamination sources, generally conducted before the study phase is complete.

DON has increased use of IRAs and removal actions in recent years to protect human health and the environment, accomplish cleanups quickly, and reduce risks and study costs. IRAs often become final remedial solutions once further confirmation studies are complete. In FY01, IRAs and removal actions represented approximately 42% of the cleanup dollars spent.



*IRAs include Removal Actions

Figure 62: ER,N spending in FY01

4 - 4 February 2002

Snapshots: Cost-to-Complete

The costs for completing the entire Installation Restoration program consist of dollars already spent (Executed Costs) and anticipated future costs (Cost–to–Complete). As DON – using the S.M.A.R.T. Cleanup strategy

— continues to discover and implement new, faster, and more efficient methods of restoring sites, projected future costs continue shrinking.

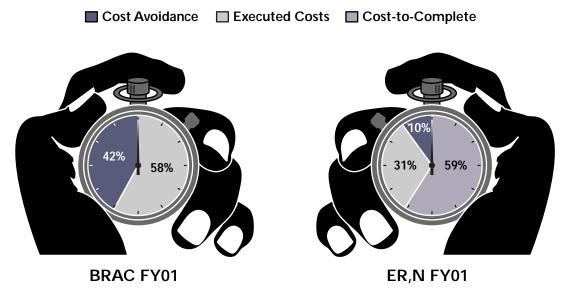


Figure 63: Installation Retoration Program FY01 spending and Cost-to-Complete

Cost Avoidance

Using the FY95 cost-to-complete figure with the increase in new site requirements as a baseline, S.M.A.R.T. cleanup reduced overall program cost by \$0.57 billion, a cost avoidance of 6.7%. The overall program cost avoidance may increase or decrease as new site requirements (regulatory, technical and/ or cost estimation) are incurred. The DON spends part of the total estimated cost-tocomplete during each fiscal year. The cumulative executed costs (spent dollars) are shown as a portion of the total program estimated cost-to-complete in FY96-FY01 for comparison to the FY95 baseline plus new site requirements. The remaining cost-tocomplete cleanup at all bases at the end of FY01 is \$4.5 billion.

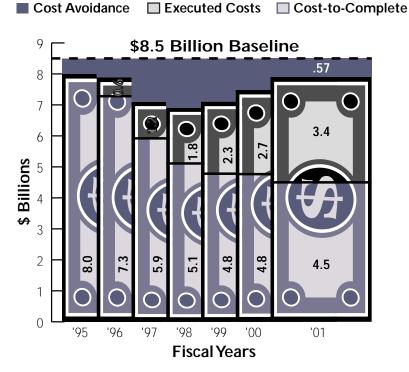


Figure 64: DON cost avoidance FY95 to FY01

Site Status: Number of Sites

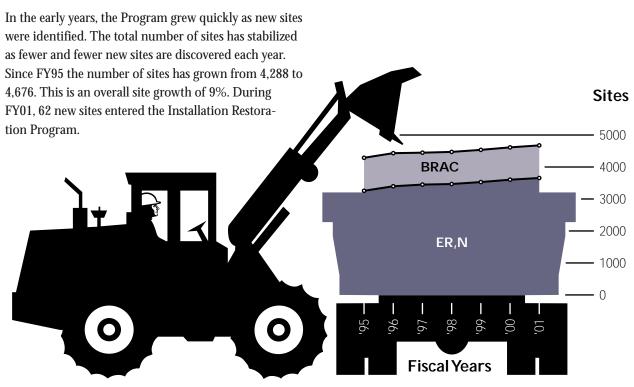


Figure 65: The number of sites in IR Program by funding type FY95 to FY01



Figure 66: Before and After of a successful site cleanup project. To learn more see page 1-5

4 - 6 February 2002

Addressing Relative Risk

DON uses DoD's Relative Risk Site Evaluation Model to rank and prioritize cleanup sites. Sites are ranked as high, medium, or low relative risk based on the model. Sites with insufficient data are classified as "not evaluated" (NE). Sites that have response complete or a final remedy in place and operational are classified as "ranking not required" (NR).*

The Environmental Restoration Program requires that high ranked sites receive priority for funding. In FY01, 17.3% of the ER,N sites had a high relative risk ranking and received 82.4% of the funding.

(FYO1 Projection is 52%).

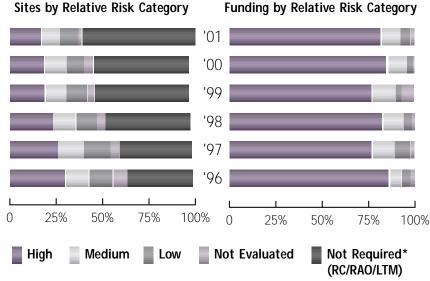


Figure 67: ER,N Relative Risk sites and funding

Defense Program Guidance Goals

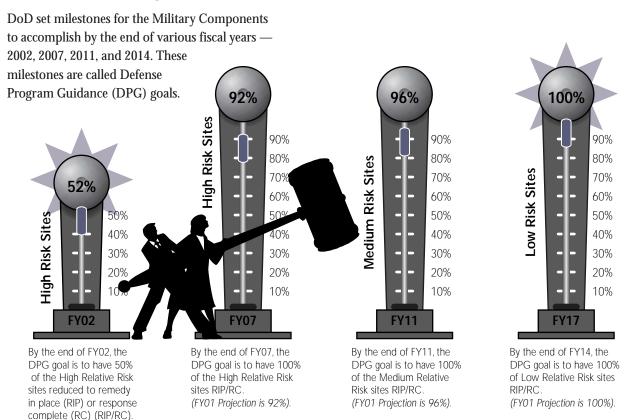


Figure 68: DPG Goal status chart illustrates DON's projected progress as of the end of FY01

Site Status: National Priority List Sites

The EPA's National Priorities List (NPL) identifies, prioritizes and informs the public of uncontrolled hazardous waste sites (listings) that warrant further investigation to determine if they pose a risk to human health or the environment. The EPA's goals are to address the worst listings first and make these areas safe by immediately controlling acute threats.

As of September 30, 2001, there were 1,310 total listings on the NPL, both proposed and final, of which 51, were for the DON. The status of EPA listings can be found in the table below.

Status	DON	All Other	Non-Federal	TOTAL
	listings	Federal listings	listings	listings
Proposed	0	7	65	72
Final	51*	109	1,078	1,238
TOTAL	51	116	1,143	1,310

(*Pearl Harbor Complex, counted as one listing, is composed of six installations and Jackson Park Housing is included under Puget Sound, Naval Shipyard.)

At the end of FY01, there were 51 DON NPL listings, with 1,762 DON sites, as presented in this book. Like the total number of DON sites, the number of DON NPL sites is stabilizing as the extent of site contamination becomes better understood. During FY01, one DON installation was finalized as an NPL site, Yorktown Naval Weapons Station, Cheatham Annex. No new Navy installations were proposed for the NPL.



Figure 69: NPL Installation and Site count

4 - 8 February 2002

Completed Actions

When all restoration activities at a site are accomplished, the site is considered a "completed action." By the end of FY01, a combined total of 3,004 responses were complete at ER,N and BRAC sites. The current

total of 4,676 sites places DON cleanup progress over the 60 percent mark for total restoration. Much work remains, but the program's goal of 100 percent completion by 2014 is in sight.

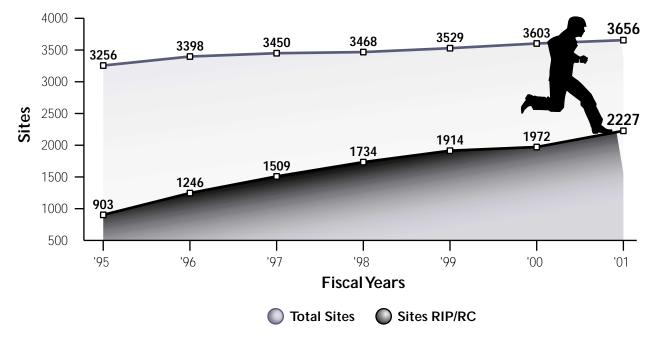


Figure 70: Active Sites with Completed Actions

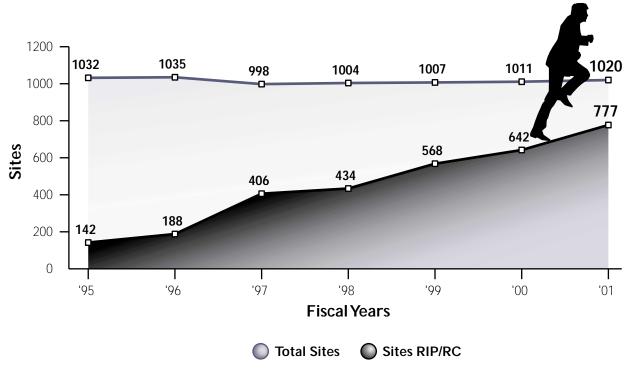


Figure 71: BRAC Sites with Completed Actions

Status of ER,N and BRAC Sites

As of September 30, 2001, there were 4,676 sites in the Cleanup Program (3,656 ER,N sites and 1,020 BRAC sites). The goal of DON's Environmental Restoration Program is to have RIP or RC at all sites by the end of FY14.

As illustrated in the Figure 72, at the end of FY01 there were 1,429 ER,N sites and 243 BRAC sites with cleanup actions yet to be completed. The goal is to reduce to only 852 sites (819 ER,N and 33 BRAC) in the cleanup phases by the end of FY06. The majority of BRAC sites will have either RIP or RC by the end of FY09 and all ER,N sites by the end of FY14.

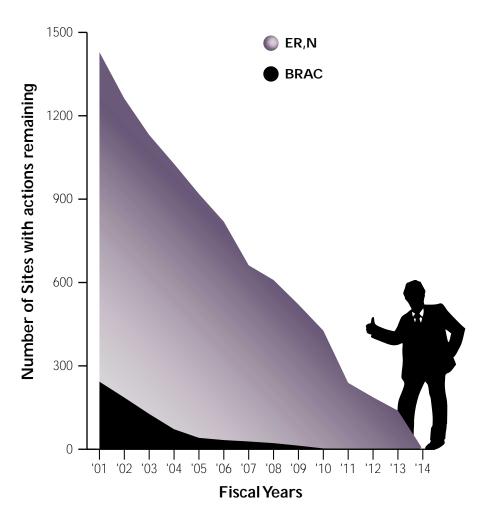


Figure 72: Status of ER,N and BRAC Sites FY01 to FY14

4 - 10 February 2002

Installations with Completed Actions

BRAC

Annapolis NSWC Det Bay Head Annex

Billings NMCRC Charleston FMWTC Charleston NRC

Charleston NS Charleston NSY Chase Field NAS Driver NAVRADSTA Glenview NAS Indianapolis NAWC

New York NS Ft. Wadsworth

Novato DOD Housing Facility

Oakland FISC Oakland NMC

Orlando NRL UWS REF DET

Philadelphia NH
Philadelphia NS
Philadelphia NSY
Puget Sound NS
Trenton NAWC
Warminster NAWC

ER,N (Active)

Arlington HQ

Arlington Service Center Athens NAVSCSCOL Atlanta NMCRC

Bainbridge NTC
Baltimore NRC
Bangor NSB
Bayview ID NSWC
Binghamton NRC
Broken Arrow NMCRC

Butte NRF

Cape Prince Wales NCCOSCO Centerville Beach NAVFAC

Cheltenham NCTC Chesapeake Bay Det NRL

Chesapeake Bay Det NSGA NWEST

Chocolate Mountain AGR

Coos Head NAV Ocean Processing Facility

Corona NOC NWAD* Dam Neck FCTC Everett NRC Fishers Island NUSC Flagstaff NOS

Floyd Bennett Field NMCRC

Guam NAVFAC

Guam NAVREGDENCEN Indian Island NAVMAG Jacksonville FISC Kingsville NAS Knoxville NMCRC Lakehurst NAWCAD

Lincoln NRC

Lowry AFB ARMFORAITC*

Lubbock NMCRC Magna NIROP Monterey NPGS

New London NUWC Det. New Orleans NAS New Orleans NSA North Island NADEP

Pearl Harbor INACTSHIPDET

Pensacola PWC Philadelphia ASO Point Sur NAVFAC

Pomonkey Test Range NRL

Portland NMCRC

Portsmouth NAVMEDCTR
Puget Sound FISC Bremerton
Puget Sound FISC Manchester
Puget Sound NH Bremerton*
Puget Sound NS Everett

Quincy NRC Sabana Seca NSGA Salem NMCRC

San Diego NAVMEDCTR San Juan SUPSHIP Seattle NAVRESREDCEN

continued on page 4-12

COMMUNITY INVOLVEMENT — A KEY TO CLEANUP AND CLOSURE

ER,N (Active) continued

Sentinel NCCOSC

St. Lawrence NCCOSC

St. Paul NIROP

Sugar Grove NSGA

Sunnyvale NIROP

Syracuse MCRTC

Tacoma NMCRC

Tin City NCCOSC

Waldorf NRL

Warner Springs SERE Camp

Washington NRL

Watertown NRC

Wilmington NRC

Wyoming MCRC

(*Installations that have received RIP/RC for Installation Restoration sites.)

4 - 12 February 2002